A method for determining the concentration of an additive X of an electrochemical bath that includes at least one further component Y is set forth. In accordance with the method, a predetermined amount of a starting solution is provided. The starting solution comprises virgin makeup solution that is saturated with the further additive, or forms a mixed solution that is saturated with the further additive when combined with an amount of the electrochemical bath for measurement that is extracted for measurement. A predetermined amount of the extracted electrochemical bath is then added to the predetermined amount of the starting solution to form the mixed solution. At least one electroanalytical measurement cycle it is then executed using the mixed solution and the results of the measurement cycle are compared with a known measurement standard.